```
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PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *  Welcome to STN International  * * * * * * * * * *

 NEWS  1            Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2            "Ask CAS" for self-help around the clock
 NEWS  3  JUL 12    BEILSTEIN enhanced with new display and select options,
                    resulting in a closer connection to BABS
 NEWS  4  AUG 02    IFIPAT/IFIUDB/IFICDB reloaded with new search and display
                    fields
 NEWS  5  AUG 02    CAplus and CA patent records enhanced with European and Japan
                    Patent Office Classifications
 NEWS  6  AUG 02    The Analysis Edition of STN Express with Discover!
                    (Version 7.01 for Windows) now available
 NEWS  7  AUG 27    BIOCOMMERCE: Changes and enhancements to content coverage
 NEWS  8  AUG 27    BIOTECHABS/BIOTECHDS: Two new display fields added for legal
                    status data from INPADOC
 NEWS  9  SEP 01    INPADOC: New family current-awareness alert (SDI) available
 NEWS 10  SEP 01    New pricing for the Save Answers for SciFinder Wizard within
                    STN Express with Discover!
 NEWS 11  SEP 01    New display format, HITSTR, available in WPIDS/WPINDEX/WPIX
 NEWS 12  SEP 27    STANDARDS will no longer be available on STN
 NEWS 13  SEP 27    SWETSCAN will no longer be available on STN
 NEWS 14  OCT 28    KOREAPAT now available on STN

 NEWS EXPRESS  OCTOBER 29 CURRENT WINDOWS VERSION IS V7.01A, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS INTER    General Internet Information
 NEWS LOGIN    Welcome Banner and News Items
 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)

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FILE 'HOME' ENTERED AT 18:17:10 ON 17 NOV 2004

=> file medline biosis embase
COST IN U.S. DOLLARS                                  SINCE FILE      TOTAL
                                                         ENTRY     SESSION
```

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FULL ESTIMATED COST                                    0.21        0.21

FILE 'MEDLINE' ENTERED AT 18:17:26 ON 17 NOV 2004

FILE 'BIOSIS' ENTERED AT 18:17:26 ON 17 NOV 2004
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=> d his

     (FILE 'HOME' ENTERED AT 18:17:10 ON 17 NOV 2004)

     FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 18:17:26 ON 17 NOV 2004

=> logoff
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:n

=> d his

     (FILE 'HOME' ENTERED AT 18:17:10 ON 17 NOV 2004)

     FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 18:17:26 ON 17 NOV 2004

=> e gascoyne p/au
E1            2     GASCOYNE MEL/AU
E2           12     GASCOYNE N/AU
E3            6 --> GASCOYNE P/AU
E4           32     GASCOYNE P R/AU
E5           65     GASCOYNE P R C/AU
E6            4     GASCOYNE PETER/AU
E7           22     GASCOYNE PETER R C/AU
E8           53     GASCOYNE R/AU
E9            3     GASCOYNE R A/AU
E10         281     GASCOYNE R D/AU
E11           1     GASCOYNE RANDALL D/AU
E12          17     GASCOYNE RANDY/AU

=> s e3-e7
L1          129 ("GASCOYNE P"/AU OR "GASCOYNE P R"/AU OR "GASCOYNE P R C"/AU OR
                "GASCOYNE PETER"/AU OR "GASCOYNE PETER R C"/AU)

=> s l1 and manueverable
L2            0 L1 AND MANUEVERABLE

=> l1 and dielectrophoresis
L3           39 L1 AND DIELECTROPHORESIS

=> dup rem l3
PROCESSING COMPLETED FOR L3
L4           18 DUP REM L3 (21 DUPLICATES REMOVED)

=> t ti l4 1-18

L4   ANSWER 1 OF 18     MEDLINE on STN                    DUPLICATE 1
TI   Dielectrophoresis-based programmable fluidic processors.

L4   ANSWER 2 OF 18     MEDLINE on STN                    DUPLICATE 2
TI   Droplet-based chemistry on a programmable micro-chip.
```

L4 ANSWER 3 OF 18 MEDLINE on STN DUPLICATE 3
TI Particle separation by **dielectrophoresis**.

L4 ANSWER 4 OF 18 MEDLINE on STN DUPLICATE 4
TI Detection of cellular responses to toxicants by **dielectrophoresis**
.

L4 ANSWER 5 OF 18 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI Membrane dielectric changes indicate induced apoptosis in HL-60 cells more sensitively than surface phosphatidylserine expression or DNA fragmentation.

L4 ANSWER 6 OF 18 MEDLINE on STN DUPLICATE 5
TI Microsample preparation by **dielectrophoresis**: isolation of malaria.

L4 ANSWER 7 OF 18 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI Development and optimization of a dielectrophoretic cell separator.

L4 ANSWER 8 OF 18 MEDLINE on STN DUPLICATE 6
TI Dielectrophoretic manipulation of cells with spiral electrodes.

L4 ANSWER 9 OF 18 MEDLINE on STN DUPLICATE 7
TI Introducing **dielectrophoresis** as a new force field for field-flow fractionation.

L4 ANSWER 10 OF 18 MEDLINE on STN DUPLICATE 8
TI Electrorotation of liposomes: verification of dielectric multi-shell model for cells.

L4 ANSWER 11 OF 18 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI Changes in membrane electrical properties of human T-lymphocytes induced by mitogenic stimulation.

L4 ANSWER 12 OF 18 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI Cell separation by conventional **dielectrophoresis** combined with field-flow-fractionation.

L4 ANSWER 13 OF 18 MEDLINE on STN DUPLICATE 9
TI Membrane changes associated with the temperature-sensitive P85gag-mos-dependent transformation of rat kidney cells as determined by **dielectrophoresis** and electrorotation.

L4 ANSWER 14 OF 18 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI Theory of generalized **dielectrophoresis** and its applications.

L4 ANSWER 15 OF 18 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI Non-uniform spatial distributions of both the magnitude and phase of AC electric fields determine dielectrophoretic forces.

L4 ANSWER 16 OF 18 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI Characterization and manipulation of cells by electrorotation and **dielectrophoresis**.

L4 ANSWER 17 OF 18 MEDLINE on STN DUPLICATE 10

TI Membrane changes accompanying the induced differentiation of Friend murine erythroleukemia cells studied by **dielectrophoresis**.

L4 ANSWER 18 OF 18 MEDLINE on STN DUPLICATE 11
TI Dielectrophoretic characterisation of Friend murine erythroleukaemic cells as a measure of induced differentiation.

=> d ibib abs l4 7,9,12,14-16

L4 ANSWER 7 OF 18 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 1999:399162 BIOSIS
DOCUMENT NUMBER: PREV199900399162
TITLE: Development and optimization of a dielectrophoretic cell separator.
AUTHOR(S): Yang, J.; Huang, Y.; Becker, F. F.; **Gascoyne, P. R.** ; Wang, X. B.
CORPORATE SOURCE: Taipei, Taiwan
SOURCE: Clinical Chemistry, (June, 1999) Vol. 45, No. 6 PART 2, pp. A104. print.
Meeting Info.: 51st Annual Meeting of the American Association of Clinical Chemistry. New Orleans, Louisiana, USA. July 25-29, 1999. American Association of Clinical Chemistry.
CODEN: CLCHAU. ISSN: 0009-9147.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LANGUAGE: English
ENTRY DATE: Entered STN: 8 Oct 1999
Last Updated on STN: 8 Oct 1999

L4 ANSWER 9 OF 18 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 97395724 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9251828
TITLE: Introducing **dielectrophoresis** as a new force field for field-flow fractionation.
AUTHOR: Huang Y; Wang X B; Becker F F; **Gascoyne P R**
CORPORATE SOURCE: Department of Experiment Pathology, University of Texas M. D. Anderson Cancer Center, Houston 77030, USA.
CONTRACT NUMBER: R01 DK51065-01 (NIDDK)
SOURCE: Biophysical journal, (1997 Aug) 73 (2) 1118-29.
Journal code: 0370626. ISSN: 0006-3495.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199709
ENTRY DATE: Entered STN: 19971013
Last Updated on STN: 19971013
Entered Medline: 19970929
AB We present the principle of cell characterization and separation by dielectrophoretic field-flow fractionation and show preliminary experimental results. The operational device takes the form of a thin chamber in which the bottom wall supports an array of microelectrodes. By applying appropriate AC voltage signals to these electrodes, dielectrophoretic forces are generated to levitate cells suspended in the chamber and to affect their equilibrium heights. A laminar flow profile is established in the chamber so that fluid flows faster with increasing distance from the chamber walls. A cell carried in the flow stream will attain an equilibrium height, and a corresponding velocity, based on the

balance of dielectrophoretic, gravitational, and hydrodynamic lift forces it experiences. We describe a theoretical model for this system and show that the cell velocity is a function of the mean fluid velocity, the voltage and frequency of the signals applied to the electrodes, and, most significantly, the cell dielectric properties. The validity of the model is demonstrated with human leukemia (HL-60) cells subjected to a parallel electrode array, and application of the device to separating HL-60 cells from peripheral blood mononuclear cells is shown.

L4 ANSWER 12 OF 18 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 1996:141770 BIOSIS
DOCUMENT NUMBER: PREV199698713905
TITLE: Cell separation by conventional **dielectrophoresis** combined with field-flow-fractionation.
AUTHOR(S): **Gascoyne, P. R. C.**; Huang, Y.; Wang, X.-J.; Yang, J.; Degasperis, G.; Wang, Xiaobo
CORPORATE SOURCE: Dep. Molecular Pathol., Box 89, Univ. Tex. M.D. Anderson Cancer Cent., 1515 Holcombe Boulevard, Houston, TX 77030, USA
SOURCE: Biophysical Journal, (1996) Vol. 70, No. 2 PART 2, pp. A333.
Meeting Info.: 40th Annual Meeting of the Biophysical Society. Baltimore, Maryland, USA. February 17-21, 1996.
CODEN: BIOJAU. ISSN: 0006-3495.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 3 Apr 1996
Last Updated on STN: 26 Apr 1996

L4 ANSWER 14 OF 18 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 1995:138705 BIOSIS
DOCUMENT NUMBER: PREV199598153005
TITLE: Theory of generalized **dielectrophoresis** and its applications.
AUTHOR(S): Wang, X.-B.; Huang, Y.; Becker, F. F; **Gascoyne, P. R. C.**
CORPORATE SOURCE: Box 89, UT M.D. Anderson Cancer Center, 1515 Holcombe Blvd., Houston, TX 77030, USA
SOURCE: Biophysical Journal, (1995) Vol. 68, No. 2 PART 2, pp. A221.
Meeting Info.: 39th Annual Meeting of the Biophysical Society. San Francisco, California, USA. February 12-16, 1995.
CODEN: BIOJAU. ISSN: 0006-3495.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 3 Apr 1995
Last Updated on STN: 3 Apr 1995

L4 ANSWER 15 OF 18 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 1995:201916 BIOSIS
DOCUMENT NUMBER: PREV199598216216
TITLE: Non-uniform spatial distributions of both the magnitude and phase of AC electric fields determine dielectrophoretic forces.
AUTHOR(S): Wang, X.-B. [Reprint author]; Hughes, M. P.; Huang, Y.; Becker, F. F.; **Gascoyne, P. R. C.**

CORPORATE SOURCE: Box 89, Dep. Mol. Pathol., Univ. Texas M.D. Anderson Cancer Cent., 1515 Holcombe Blvd., Houston, TX 77030, USA

SOURCE: Biochimica et Biophysica Acta, (1995) Vol. 1243, No. 2, pp. 185-194.
CODEN: BBACAQ. ISSN: 0006-3002.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 23 May 1995
Last Updated on STN: 23 May 1995

AB It is well known that the conventional dielectrophoretic force acting on a polarized particle in a non-uniform AC electric field is proportional to the in-phase component of the induced dipole moment and the non-uniformity of the field strength. In contrast, the travelling-wave-dielectrophoretic force that acts on a particle subjected to a travelling electric field is proportional to the out-of-phase component of the induced dipole moment. We derive a theory that unifies the description and interpretation of conventional dielectrophoretic and travelling-wave-dielectrophoretic forces. We show that a particle in a nonuniform AC electric field experiences a dielectrophoretic force due to spatial non-uniformities of the magnitude and the phase of the field interacting, respectively, with the in-phase and out-of-phase components of the induced dipole moment. The theory is used to explain the translational effects observed for particles in the presence of standing, travelling and rotating fields in several experimental electrode configurations. The good agreement found between the experimental observations and the theoretical predictions validate the theory.

L4 ANSWER 16 OF 18 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 1994:287875 BIOSIS

DOCUMENT NUMBER: PREV199497300875

TITLE: Characterization and manipulation of cells by electrorotation and **dielectrophoresis.**

AUTHOR(S): **Gascoyne, P. R. C.**; Wang, X.-B.; Huang, Y. J.; Becker, F. F.

CORPORATE SOURCE: Univ. Tex. M. D. Anderson Cancer Cent., 1515 Holcombe Blvd., Houston, TX 77030, USA

SOURCE: Proceedings of the American Association for Cancer Research Annual Meeting, (1994) Vol. 35, No. 0, pp. 16.
Meeting Info.: 85th Annual Meeting of the American Association for Cancer Research. San Francisco, California, USA. April 10-13, 1994.
ISSN: 0197-016X.

DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 30 Jun 1994
Last Updated on STN: 30 Jun 1994

=> FIL STNGUIDE

COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	15.25	15.46

FILE 'STNGUIDE' ENTERED AT 18:22:37 ON 17 NOV 2004

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Nov 12, 2004 (20041112/UP).

```
=> s l11 and vesicle
L12           2 L11 AND VESICLE

=> s l11 and ghost
L13           1 L11 AND GHOST

=> s l12 and ghost
L14           1 L12 AND GHOST

=> t ti l14

L14  ANSWER 1 OF 1  WPIDS  COPYRIGHT 2004 THE THOMSON CORP on STN
TI   Engineered microparticle, e.g. for blood analysis, is dielectrically-
     dispersive and produces dielectric response to applied electric field.


=> l11 not l 14
L15           3 L11 NOT L 14

=> l11 not l4
L16           3 L11 NOT 14

=> l11 not l14
L17           2 L11 NOT L14

=> t ti l17 1-2

L17  ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Forming and modifying dielectrically-engineered microparticles

L17  ANSWER 2 OF 2  CAPLUS  COPYRIGHT 2004 ACS on STN
TI   Dielectrically Addressable Microspheres Engineered Using Self-Assembled
     Monolayers


=> file medline biosis embase
COST IN U.S. DOLLARS                                  SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                      20.03      93.22

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)            SINCE FILE      TOTAL
                                                         ENTRY    SESSION
CA SUBSCRIBER PRICE                                       0.00      -1.40

FILE 'MEDLINE' ENTERED AT 17:56:58 ON 17 NOV 2004

FILE 'BIOSIS' ENTERED AT 17:56:58 ON 17 NOV 2004
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FILE 'EMBASE' ENTERED AT 17:56:58 ON 17 NOV 2004
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=> e gascoyne p/au
E1            2      GASCOYNE MEL/AU
E2           12      GASCOYNE N/AU
E3            6 --> GASCOYNE P/AU
E4           32      GASCOYNE P R/AU
E5           65      GASCOYNE P R C/AU
E6            4      GASCOYNE PETER/AU
E7           22      GASCOYNE PETER R C/AU
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E8          53     GASCOYNE R/AU
E9           3     GASCOYNE R A/AU
E10        281     GASCOYNE R D/AU
E11          1     GASCOYNE RANDALL D/AU
E12         17     GASCOYNE RANDY/AU

=> s e3-37
'E37' NOT FOUND
The E# entered is not currently defined.

=> s e3-e7
L18         129 ("GASCOYNE P"/AU OR "GASCOYNE P R"/AU OR "GASCOYNE P R C"/AU OR
                "GASCOYNE PETER"/AU OR "GASCOYNE PETER R C"/AU)

=> l18 and (particle or microparticle)
L19          15 L18 AND (PARTICLE OR MICROPARTICLE)

=> s l18 and ganglioside
L20           0 L18 AND GANGLIOSIDE

=> l18 and erythrocyte
L21           9 L18 AND ERYTHROCYTE

=> dup rem l21
PROCESSING COMPLETED FOR L21
L22           5 DUP REM L21 (4 DUPLICATES REMOVED)

=> t ti l22 1-5

L22  ANSWER 1 OF 5      MEDLINE on STN                    DUPLICATE 1
TI   Dielectric properties of human leukocyte subpopulations determined by
     electrorotation as a cell separation criterion.

L22  ANSWER 2 OF 5      MEDLINE on STN                    DUPLICATE 2
TI   Dielectrophoretic detection of changes in erythrocyte membranes
     following malarial infection.

L22  ANSWER 3 OF 5  EMBASE  COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.
     on STN
TI   Separation of human breast cancer cells from blood by differential
     dielectric affinity.

L22  ANSWER 4 OF 5  BIOSIS  COPYRIGHT (c) 2004 The Thomson Corporation.  on STN
TI   Cell dielectric phenotype determined from electrokinetic studies.

L22  ANSWER 5 OF 5      MEDLINE on STN
TI   Changes in Friend murine erythroleukaemia cell membranes during induced
     differentiation determined by electrorotation.


=> dup rem l19
PROCESSING COMPLETED FOR L19
L23           8 DUP REM L19 (7 DUPLICATES REMOVED)

=> t ti l23 1-8

L23  ANSWER 1 OF 8      MEDLINE on STN
TI   Dielectrophoresis-based programmable fluidic processors.

L23  ANSWER 2 OF 8  EMBASE  COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.
     on STN
TI   Droplet-based chemistry on a programmable micro-chip.
```

L23 ANSWER 3 OF 8 MEDLINE on STN DUPLICATE 1
TI **Particle** separation by dielectrophoresis.

L23 ANSWER 4 OF 8 MEDLINE on STN DUPLICATE 2
TI Separation of polystyrene microbeads using dielectrophoretic/gravitational field-flow-fractionation.

L23 ANSWER 5 OF 8 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI On the low frequency dielectric properties of charged particles.

L23 ANSWER 6 OF 8 MEDLINE on STN DUPLICATE 3
TI Separation of human breast cancer cells from blood by differential dielectric affinity.

L23 ANSWER 7 OF 8 MEDLINE on STN DUPLICATE 4
TI Non-uniform spatial distributions of both the magnitude and phase of AC electric fields determine dielectrophoretic forces.

L23 ANSWER 8 OF 8 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI Numerical analysis of the influence of experimental conditions on the accuracy of dielectric parameters derived from electrorotation measurements.

=> d ibib abs l23 4,5

L23 ANSWER 4 OF 8 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 1998252367 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9591693
TITLE: Separation of polystyrene microbeads using dielectrophoretic/gravitational field-flow-fractionation.
AUTHOR: Wang X B; Vykoukal J; Becker F F; **Gascoyne P R**
CORPORATE SOURCE: Department of Experimental Pathology, University of Texas M. D. Anderson Cancer Center, Houston 77030, USA.. xiaobo@solace.mdacc.tmc.edu
CONTRACT NUMBER: R01 DK51065-01 (NIDDK)
SOURCE: Biophysical journal, (1998 May) 74 (5) 2689-701. Journal code: 0370626. ISSN: 0006-3495.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Space Life Sciences
ENTRY MONTH: 199807
ENTRY DATE: Entered STN: 19980723
Last Updated on STN: 19980723
Entered Medline: 19980716

AB The characterization of a dielectrophoretic/gravitational field-flow-fractionation (DEP/G-FFF) system using model polystyrene (PS) microbeads is presented. Separations of PS beads of different surface functionalization (COOH and none) and different sizes (6, 10, and 15 microm in diameter) are demonstrated. To investigate the factors influencing separation performance, **particle** elution times were determined as a function of **particle** suspension conductivity, fluid flow rate, and applied field frequency and voltage. Experimental data were analyzed using a previously reported theoretical model and good agreement between theory and experiment was found. It was shown that separation of PS beads was based on the differences in their effective dielectric properties. Particles possessing different dielectric properties were positioned at different heights in a fluid-flow profile in a thin chamber by the balance of DEP and gravitational forces, transported at different velocities under the influence of the fluid flow, and thereby

separated. To explore hydrodynamic (HD) lift effects, velocities of PS beads were determined as a function of fluid flow rate in the separation chamber when no DEP field was applied. In this case, **particle** equilibrium height positions were governed solely by the balance of HD lift and gravitational forces. It was concluded that under the experimental conditions reported here, the DEP force was the dominant factor in controlling **particle** equilibrium height and that HD lift force played little role in DEP/G-FFF operation. Finally, the influence of various experimental parameters on separation performance was discussed for the optimization of DEP/G-FFF.

L23 ANSWER 5 OF 8 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 1997:142948 BIOSIS
DOCUMENT NUMBER: PREV199799442151
TITLE: On the low frequency dielectric properties of charged particles.
AUTHOR(S): Wang, X.-B. Y. Huang; Becker, F. F.; **Gascoyne, P. R. C.**
CORPORATE SOURCE: Box 89, UT M.D. Anderson Cancer Center, 1515 Holcombe Blvd., Houston, TX 77030, USA
SOURCE: Biophysical Journal, (1997) Vol. 72, No. 2 PART 2, pp. A329.
Meeting Info.: 41st Annual Meeting of the Biophysical Society. New Orleans, Louisiana, USA. March 2-6, 1997.
CODEN: BIOJAU. ISSN: 0006-3495.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LANGUAGE: English
ENTRY DATE: Entered STN: 2 Apr 1997
Last Updated on STN: 2 Apr 1997

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	12.10	105.32

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.40

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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Nov 12, 2004 (20041112/UP).

=> file medline biosis embase

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.12	105.44

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.40

FILE 'MEDLINE' ENTERED AT 18:05:26 ON 17 NOV 2004

FILE 'BIOSIS' ENTERED AT 18:05:26 ON 17 NOV 2004

FILE 'EMBASE' ENTERED AT 18:05:26 ON 17 NOV 2004

=> d his

(FILE 'HOME' ENTERED AT 17:29:33 ON 17 NOV 2004)

FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE, WPIDS' ENTERED AT 17:30:35 ON 17 NOV 2004
E GASCOYNE P/AU
L1 666167 S E3 OR E6 OR E7 OR E8 OR E10 OR E11 OR 39
L2 288 S E3 OR E6 OR E7 OR E8 OR E10 OR E11 OR E12
L3 4 S L2 AND MICROPARTICLE
L4 2 DUP REM L3 (2 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 17:35:12 ON 17 NOV 2004

FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE, WPIDS' ENTERED AT 17:44:00 ON 17 NOV 2004
L5 96 L2 AND DIELECTRIC?
L6 3 S L5 AND (SELF (W) ASSEMBLED (W) MONOLAYER)
L7 3 S L6 NOT L4
L8 3 DUP REM L6 (0 DUPLICATES REMOVED)
L9 32 L2 AND PARTICLE
L10 32 S L9 NOT L3

FILE 'STNGUIDE' ENTERED AT 17:50:06 ON 17 NOV 2004

FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE, WPIDS' ENTERED AT 17:53:33 ON 17 NOV 2004
L11 3 L2 AND GANGLIOSIDE
L12 2 S L11 AND VESICLE
L13 1 S L11 AND GHOST
L14 1 S L12 AND GHOST
L15 3 L11 NOT L 14
L16 3 L11 NOT 14
L17 2 L11 NOT L14

FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 17:56:58 ON 17 NOV 2004
E GASCOYNE P/AU
L18 129 S E3-E7
L19 15 L18 AND (PARTICLE OR MICROPARTICLE)
L20 0 S L18 AND GANGLIOSIDE
L21 9 L18 AND ERYTHROCYTE
L22 5 DUP REM L21 (4 DUPLICATES REMOVED)
L23 8 DUP REM L19 (7 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 18:04:27 ON 17 NOV 2004

FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 18:05:26 ON 17 NOV 2004

=> l18 and (self(w)assembled(w)monolayer)
L24 0 L18 AND (SELF(W) ASSEMBLED(W) MONOLAYER)

=> (self(w)assembled(w)monolayer)
L25 892 (SELF(W) ASSEMBLED(W) MONOLAYER)

=> s l18 and biotin?
L26 0 L18 AND BIOTIN?

```
=> s l18 and streptavidin
L27           0 L18 AND STREPTAVIDIN

=> l18 and dipolar
L28           0 L18 AND DIPOLAR

=> d scan l18

L18  129 ANSWERS  BIOSIS  COPYRIGHT (c) 2004 The Thomson Corporation.  on STN
TI   Electrorotational studies of the cytoplasmic dielectric properties of
     Friend murine erythroleukaemia cells.
IT   Miscellaneous Descriptors
        ERYTHROLEUKEMIA

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> l18 and (doping or dope or doped)
L29           0 L18 AND (DOPING OR DOPE OR DOPED)

=> l18 and core
L30           3 L18 AND CORE

=> dup rem l30
PROCESSING COMPLETED FOR L30
L31           1 DUP REM L30 (2 DUPLICATES REMOVED)

=> t ti 131

L31  ANSWER 1 OF 1     MEDLINE on STN                    DUPLICATE 1
TI   Droplet-based chemistry on a programmable micro-chip.


=> d ibib abs 131

L31  ANSWER 1 OF 1     MEDLINE on STN                    DUPLICATE 1
ACCESSION NUMBER:   2004117192     MEDLINE
DOCUMENT NUMBER:    PubMed ID: 15007434
TITLE:              Droplet-based chemistry on a programmable micro-chip.
AUTHOR:             Schwartz Jon A; Vykoukal Jody V; Gascoyne Peter R C
CORPORATE SOURCE:   Department of Experimental Pathology, University of Texas M
                    D Anderson Cancer Center, Box 089, 1515 Holcombe Boulevard,
                    Houston, Texas, USA.. schwartz@mdanderson.org
SOURCE:             Lab Chip, (2004 Feb) 4 (1) 11-7.
                    Journal code: 101128948. ISSN: 1473-0197.
PUB. COUNTRY:       England: United Kingdom
DOCUMENT TYPE:      Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:           English
FILE SEGMENT:       Priority Journals
ENTRY MONTH:        200411
ENTRY DATE:         Entered STN: 20040310
                    Last Updated on STN: 20041110
                    Entered Medline: 20041109
AB   We describe the manipulation of aqueous droplets in an immiscible,
     low-permittivity suspending medium.  Such droplets may serve as carriers
     for not only air- and water-borne samples, contaminants, chemical
     reagents, viral and gene products, and cells, but also the reagents to
     process and characterise these samples.  We present proofs-of-concept for
     droplet manipulation through dielectrophoresis by: (1). moving droplets on
     a two-dimensional array of electrodes, (2). achieving dielectrically-
     activated droplet injection, (3). fusing and reacting droplets, and (4).
     conducting a basic biological assay through a combination of these steps.
     A long-term goal of this research is to provide a platform fluidic
```

processor technology that can form the **core** of versatile, automated, micro-scale devices to perform chemical and biological assays at or near the point of care, which will increase the availability of modern medicine to people who do not have ready access to modern medical institutions, and decrease the cost and delays associated with that lack of access.

=> d his

(FILE 'HOME' ENTERED AT 17:29:33 ON 17 NOV 2004)

FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE, WPIDS' ENTERED AT 17:30:35 ON 17 NOV 2004

E GASCOYNE P/AU

L1 666167 S E3 OR E6 OR E7 OR E8 OR E10 OR E11 OR 39

L2 288 S E3 OR E6 OR E7 OR E8 OR E10 OR E11 OR E12

L3 4 S L2 AND MICROPARTICLE

L4 2 DUP REM L3 (2 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 17:35:12 ON 17 NOV 2004

FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE, WPIDS' ENTERED AT 17:44:00 ON 17 NOV 2004

L5 96 L2 AND DIELECTRIC?

L6 3 S L5 AND (SELF (W) ASSEMBLED (W) MONOLAYER)

L7 3 S L6 NOT L4

L8 3 DUP REM L6 (0 DUPLICATES REMOVED)

L9 32 L2 AND PARTICLE

L10 32 S L9 NOT L3

FILE 'STNGUIDE' ENTERED AT 17:50:06 ON 17 NOV 2004

FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE, WPIDS' ENTERED AT 17:53:33 ON 17 NOV 2004

L11 3 L2 AND GANGLIOSIDE

L12 2 S L11 AND VESICLE

L13 1 S L11 AND GHOST

L14 1 S L12 AND GHOST

L15 3 L11 NOT L 14

L16 3 L11 NOT 14

L17 2 L11 NOT L14

FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 17:56:58 ON 17 NOV 2004

E GASCOYNE P/AU

L18 129 S E3-E7

L19 15 L18 AND (PARTICLE OR MICROPARTICLE)

L20 0 S L18 AND GANGLIOSIDE

L21 9 L18 AND ERYTHROCYTE

L22 5 DUP REM L21 (4 DUPLICATES REMOVED)

L23 8 DUP REM L19 (7 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 18:04:27 ON 17 NOV 2004

FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 18:05:26 ON 17 NOV 2004

L24 0 L18 AND (SELF(W)ASSEMBLED(W)MONOLAYER)

L25 892 (SELF(W)ASSEMBLED(W)MONOLAYER)

L26 0 S L18 AND BIOTIN?

L27 0 S L18 AND STREPTAVIDIN

L28 0 L18 AND DIPOLAR

L29 0 L18 AND (DOPING OR DOPE OR DOPED)

L30 3 L18 AND CORE

```
L31             1 DUP REM L30 (2 DUPLICATES REMOVED)

=> l18 and fluorescen?
L32             7 L18 AND FLUORESCEN?

=> dup rem l32
PROCESSING COMPLETED FOR L32
L33             4 DUP REM L32 (3 DUPLICATES REMOVED)

=> t ti l33 1-4

L33  ANSWER 1 OF 4      MEDLINE on STN
TI   Droplet-based chemistry on a programmable micro-chip.

L33  ANSWER 2 OF 4  BIOSIS  COPYRIGHT (c) 2004 The Thomson Corporation.  on STN
TI   Microsample preparation by dielectrophoresis: Isolation of malaria.

L33  ANSWER 3 OF 4      MEDLINE on STN                    DUPLICATE 1
TI   Electrorotation of liposomes: verification of dielectric multi-shell model
     for cells.

L33  ANSWER 4 OF 4      MEDLINE on STN                    DUPLICATE 2
TI   Changes in cell surface charge and transmembrane potential accompanying
     neoplastic transformation of rat kidney cells.


=> d his

     (FILE 'HOME' ENTERED AT 17:29:33 ON 17 NOV 2004)

     FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE, WPIDS' ENTERED AT 17:30:35 ON 17
     NOV 2004
                E GASCOYNE P/AU
L1         666167 S E3 OR E6 OR E7 OR E8 OR E10 OR E11 OR 39
L2            288 S E3 OR E6 OR E7 OR E8 OR E10 OR E11 OR E12
L3              4 S L2 AND MICROPARTICLE
L4              2 DUP REM L3 (2 DUPLICATES REMOVED)

     FILE 'STNGUIDE' ENTERED AT 17:35:12 ON 17 NOV 2004

     FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE, WPIDS' ENTERED AT 17:44:00 ON 17
     NOV 2004
L5             96 L2 AND DIELECTRIC?
L6              3 S L5 AND (SELF (W) ASSEMBLED (W) MONOLAYER)
L7              3 S L6 NOT L4
L8              3 DUP REM L6 (0 DUPLICATES REMOVED)
L9             32 L2 AND PARTICLE
L10            32 S L9 NOT L3

     FILE 'STNGUIDE' ENTERED AT 17:50:06 ON 17 NOV 2004

     FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE, WPIDS' ENTERED AT 17:53:33 ON 17
     NOV 2004
L11             3 L2 AND GANGLIOSIDE
L12             2 S L11 AND VESICLE
L13             1 S L11 AND GHOST
L14             1 S L12 AND GHOST
L15             3 L11 NOT L 14
L16             3 L11 NOT 14
L17             2 L11 NOT L14

     FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 17:56:58 ON 17 NOV 2004
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```
                E GASCOYNE P/AU
L18           129 S E3-E7
L19            15 L18 AND (PARTICLE OR MICROPARTICLE)
L20             0 S L18 AND GANGLIOSIDE
L21             9 L18 AND ERYTHROCYTE
L22             5 DUP REM L21 (4 DUPLICATES REMOVED)
L23             8 DUP REM L19 (7 DUPLICATES REMOVED)

     FILE 'STNGUIDE' ENTERED AT 18:04:27 ON 17 NOV 2004

     FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 18:05:26 ON 17 NOV 2004
L24             0 L18 AND (SELF(W)ASSEMBLED(W)MONOLAYER)
L25           892 (SELF(W)ASSEMBLED(W)MONOLAYER)
L26             0 S L18 AND BIOTIN?
L27             0 S L18 AND STREPTAVIDIN
L28             0 L18 AND DIPOLAR
L29             0 L18 AND (DOPING OR DOPE OR DOPED)
L30             3 L18 AND CORE
L31             1 DUP REM L30 (2 DUPLICATES REMOVED)
L32             7 L18 AND FLUORESCEN?
L33             4 DUP REM L32 (3 DUPLICATES REMOVED)

=> logoff y
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    11.25     116.69

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00      -1.40

STN INTERNATIONAL LOGOFF AT 18:13:37 ON 17 NOV 2004
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WEST Search History

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DATE: Wednesday, November 17, 2004

Hide?	Set Name	Query	Hit Count
		DB=PGPB,USPT; PLUR=YES; OP=OR	
☐	L5	(microbead or bead or particle or microparticle) same (dielectrophore$ with (move or moving or rotate or rotating or manuevering or manueverable or sort or sorting or sorted))	144
☐	L4	(microbead or bead or particle or microparticle) same dielectrophore$	440
☐	L3	(microbead or bead or particle or microparticle) and dielectrophore$	673
☐	L2	(microbead or bead or particle or microparticle) and dielectrophoresis	478
☐	L1	(microbead or bead or particle or microparticle) and dielectrophore?	0

END OF SEARCH HISTORY

Hit List

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Search Results - Record(s) 51 through 100 of 144 returned.

☐ 51. Document ID: US 20020115163 A1

Using default format because multiple data bases are involved.

L5: Entry 51 of 144 File: PGPB Aug 22, 2002

PGPUB-DOCUMENT-NUMBER: 20020115163
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020115163 A1

TITLE: Methods for sorting particles by size and elasticity

PUBLICATION-DATE: August 22, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wang, Mark M.	San Diego	CA	US	
Tu, Eugene	San Diego	CA	US	
O'Connell, James P.	Del Mar	CA	US	
Lykstad, Kristie L.	San Diego	CA	US	
Butler, William F.	La Jolla	CA	US	

US-CL-CURRENT: 435/173.9

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. D

☐ 52. Document ID: US 20020113204 A1

L5: Entry 52 of 144 File: PGPB Aug 22, 2002

PGPUB-DOCUMENT-NUMBER: 20020113204
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020113204 A1

TITLE: Apparatus for collection of sorted particles

PUBLICATION-DATE: August 22, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wang, Mark M.	San Diego	CA	US	
Tu, Eugene	San Diego	CA	US	
O'Connell, James P.	Del Mar	CA	US	

Lykstad, Kristie L.	San Diego	CA	US
Butler, William F.	La Jolla	CA	US

US-CL-CURRENT: 250/251

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWMC | Draw D

☐ 53. Document ID: US 20020108859 A1

L5: Entry 53 of 144 File: PGPB Aug 15, 2002

PGPUB-DOCUMENT-NUMBER: 20020108859
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020108859 A1

TITLE: Methods for modifying interaction between dielectric particles and surfaces

PUBLICATION-DATE: August 15, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wang, Mark M.	San Diego	CA	US	
Tu, Eugene	San Diego	CA	US	
O'Connell, James P.	Del Mar	CA	US	
Lykstad, Kristie L.	San Diego	CA	US	
Butler, William F.	La Jolla	CA	US	

US-CL-CURRENT: 204/547; 204/451, 204/601, 204/643

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWMC | Draw D

☐ 54. Document ID: US 20020106314 A1

L5: Entry 54 of 144 File: PGPB Aug 8, 2002

PGPUB-DOCUMENT-NUMBER: 20020106314
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020106314 A1

TITLE: Microlaboratory devices and methods

PUBLICATION-DATE: August 8, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Pelrine, Ronald E.	Boulder	CO	US	
Shastri, Subramanian Venkat	Palo Alto	CA	US	
Joseph, Jose P.	Palo Alto	CA	US	

US-CL-CURRENT: 422/186; 204/164

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. D

☐ 55. Document ID: US 20020088712 A1

L5: Entry 55 of 144 File: PGPB Jul 11, 2002

PGPUB-DOCUMENT-NUMBER: 20020088712
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020088712 A1

TITLE: Movement of particles using sequentially activated dielectrophoretic particle trapping

PUBLICATION-DATE: July 11, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Miles, Robin R.	Danville	CA	US	

US-CL-CURRENT: 204/547; 204/643

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. D

☐ 56. Document ID: US 20020076825 A1

L5: Entry 56 of 144 File: PGPB Jun 20, 2002

PGPUB-DOCUMENT-NUMBER: 20020076825
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020076825 A1

TITLE: Integrated biochip system for sample preparation and analysis

PUBLICATION-DATE: June 20, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Cheng, Jing	Beijing	CA	CN	
Wang, Xiaobo	San Diego	CA	US	
Wu, Lei	San Diego	CA	US	
Yang, Weiping	San Diego		US	
Xu, Junquan	Beijing		CN	

US-CL-CURRENT: 436/174

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. D

☐ 57. Document ID: US 20020058332 A1

L5: Entry 57 of 144 File: PGPB May 16, 2002

PGPUB-DOCUMENT-NUMBER: 20020058332
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020058332 A1

TITLE: Microfabricated crossflow devices and methods

PUBLICATION-DATE: May 16, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Quake, Stephen R.	Pasadena	CA	US	
Thorsen, Todd	Pasadena	CA	US	

US-CL-CURRENT: 435/288.3; 204/451, 204/601, 422/101, 422/70

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 58. Document ID: US 20020037499 A1

L5: Entry 58 of 144 File: PGPB Mar 28, 2002

PGPUB-DOCUMENT-NUMBER: 20020037499
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020037499 A1

TITLE: Integrated active flux microfluidic devices and methods

PUBLICATION-DATE: March 28, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Quake, Stephen R.	San Marino	CA	US	
Chou, Hou-Pu	Foster City	CA	US	

US-CL-CURRENT: 435/5; 422/57, 422/99, 435/305.2, 435/6, 436/536

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 59. Document ID: US 20020036142 A1

L5: Entry 59 of 144 File: PGPB Mar 28, 2002

PGPUB-DOCUMENT-NUMBER: 20020036142
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020036142 A1

TITLE: Systems and methods for cell subpopulation analysis

PUBLICATION-DATE: March 28, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gascoyne, Peter	Bellaire	TX	US	
Vykoukal, Jody V.	Houston	TX	US	
Becker, Frederick F.	Houston	TX	US	

US-CL-CURRENT: 204/547; 204/643

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 60. Document ID: US 20020034827 A1

L5: Entry 60 of 144 File: PGPB Mar 21, 2002

PGPUB-DOCUMENT-NUMBER: 20020034827
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020034827 A1

TITLE: Methods for solid phase nanoextraction and desorption

PUBLICATION-DATE: March 21, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Singh, Rajendra	San Jose	CA	US	
Cromer, Remy	San Jose	CA	US	
Natan, Michael J.	Los Altos	CA	US	

US-CL-CURRENT: 436/177; 436/524

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 61. Document ID: US 20020034748 A1

L5: Entry 61 of 144 File: PGPB Mar 21, 2002

PGPUB-DOCUMENT-NUMBER: 20020034748
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020034748 A1

TITLE: Methods and systems for molecular fingerprinting

PUBLICATION-DATE: March 21, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Quake, Stephen R.	San Marino	CA	US	
Chou, Hou-Pu	Foster City	CA	US	

US-CL-CURRENT: 435/6; 435/91.2, 702/20

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. De

☐ 62. Document ID: US 20020022261 A1

L5: Entry 62 of 144 File: PGPB Feb 21, 2002

PGPUB-DOCUMENT-NUMBER: 20020022261
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020022261 A1

TITLE: Miniaturized genetic analysis systems and methods

PUBLICATION-DATE: February 21, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Anderson, Rolfe C.	Saratoga	CA	US	
Lipshutz, Robert J.	Palo Alto	CA	US	
Rava, Richard P.	Redwood City	CA	US	
Fodor, Stephen P. A.	Palo Alto	CA	US	

US-CL-CURRENT: 435/287.2; 435/287.9, 435/288.6, 435/6

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. De

☐ 63. Document ID: US 20020005294 A1

L5: Entry 63 of 144 File: PGPB Jan 17, 2002

PGPUB-DOCUMENT-NUMBER: 20020005294
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020005294 A1

TITLE: Electro-fluidic assembly process for integration of electronic devices onto a substrate

PUBLICATION-DATE: January 17, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Mayer, Theresa S.	Port Matilda	PA	US	
Jackson, Thomas N.	State College	PA	US	
Nordquist, Christopher D.	State College	PA	US	

US-CL-CURRENT: 174/260; 174/261, 257/E21.705, 29/831, 29/832

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. De

☐ 64. Document ID: US 20010047941 A1

L5: Entry 64 of 144 File: PGPB Dec 6, 2001

PGPUB-DOCUMENT-NUMBER: 20010047941
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20010047941 A1

TITLE: Electrode for dielectrophoretic apparatus, dielectrophoretic apparatus, method for manufacturing the same, and method for separating substances using the electrode or dielectrophoretic apparatus

PUBLICATION-DATE: December 6, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Washizu, Masao	Sakyo-Ku		JP	
Kawabata, Tomohisa	Amagasaki-Shi		JP	

US-CL-CURRENT: 204/547

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 65. Document ID: US 20010023825 A1

L5: Entry 65 of 144 File: PGPB Sep 27, 2001

PGPUB-DOCUMENT-NUMBER: 20010023825
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20010023825 A1

TITLE: Methods and apparatus for nonlinear mobility electrophoresis separation

PUBLICATION-DATE: September 27, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Frumin, Leonid	Rehovot		IL	
Peltek, Sergey E.	Rehovot		IL	
Zilberstein, Gleb V.	Rehovot		IL	
Bukshpan, Shmuel	Dortmund		DE	
Halavee, Uriel	Ramat-Gan		IL	

US-CL-CURRENT: 204/458; 204/450, 204/451, 204/455, 204/459, 204/466, 204/469, 204/470, 204/547, 204/600, 204/601, 204/605, 204/609, 204/610, 204/616, 204/619, 204/643, 204/644

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 66. Document ID: US 6815664 B2

L5: Entry 66 of 144 File: USPT Nov 9, 2004

US-PAT-NO: 6815664
DOCUMENT-IDENTIFIER: US 6815664 B2

TITLE: Method for separation of particles

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Drawi. D

☐ 67. Document ID: US 6800490 B1

L5: Entry 67 of 144 File: USPT Oct 5, 2004

US-PAT-NO: 6800490
DOCUMENT-IDENTIFIER: US 6800490 B1

TITLE: Methods for solid phase nanoextraction and desorption

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Drawi. D

☐ 68. Document ID: US 6790330 B2

L5: Entry 68 of 144 File: USPT Sep 14, 2004

US-PAT-NO: 6790330
DOCUMENT-IDENTIFIER: US 6790330 B2

TITLE: Systems and methods for cell subpopulation analysis

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Drawi. D

☐ 69. Document ID: US 6787018 B1

L5: Entry 69 of 144 File: USPT Sep 7, 2004

US-PAT-NO: 6787018
DOCUMENT-IDENTIFIER: US 6787018 B1

TITLE: Dielectrophoretic concentration of particles under electrokinetic flow

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Drawi. D

☐ 70. Document ID: US 6784420 B2

L5: Entry 70 of 144 File: USPT Aug 31, 2004

US-PAT-NO: 6784420
DOCUMENT-IDENTIFIER: US 6784420 B2

TITLE: Method of separating particles using an optical gradient

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw. D

☐ 71. Document ID: US 6767706 B2

L5: Entry 71 of 144 File: USPT Jul 27, 2004

US-PAT-NO: 6767706
DOCUMENT-IDENTIFIER: US 6767706 B2

TITLE: Integrated active flux microfluidic devices and methods

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw. D

☐ 72. Document ID: US 6764583 B2

L5: Entry 72 of 144 File: USPT Jul 20, 2004

US-PAT-NO: 6764583
DOCUMENT-IDENTIFIER: US 6764583 B2

TITLE: Using impedance measurements for detecting pathogens trapped in an electric field

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw. D

☐ 73. Document ID: US 6749736 B1

L5: Entry 73 of 144 File: USPT Jun 15, 2004

US-PAT-NO: 6749736
DOCUMENT-IDENTIFIER: US 6749736 B1

TITLE: Electrode arrangement for the dielectrophoretic diversion of particles

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw. D

☐ 74. Document ID: US 6749669 B1

L5: Entry 74 of 144 File: USPT Jun 15, 2004

US-PAT-NO: 6749669
DOCUMENT-IDENTIFIER: US 6749669 B1

TITLE: Air cleaning device

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw. D

☐ 75. Document ID: US 6744038 B2

L5: Entry 75 of 144 File: USPT Jun 1, 2004

US-PAT-NO: 6744038
DOCUMENT-IDENTIFIER: US 6744038 B2

TITLE: Methods of separating particles using an optical gradient

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Drawi D

☐ 76. Document ID: US 6730204 B2

L5: Entry 76 of 144 File: USPT May 4, 2004

US-PAT-NO: 6730204
DOCUMENT-IDENTIFIER: US 6730204 B2

TITLE: Three dimensional separation trap based on dielectrophoresis and use thereof

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Drawi D

☐ 77. Document ID: US 6706163 B2

L5: Entry 77 of 144 File: USPT Mar 16, 2004

US-PAT-NO: 6706163
DOCUMENT-IDENTIFIER: US 6706163 B2
**** See image for Certificate of Correction ****

TITLE: On-chip analysis of particles and fractionation of particle mixtures using light-controlled electrokinetic assembly of particles near surfaces

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Drawi D

☐ 78. Document ID: US 6687987 B2

L5: Entry 78 of 144 File: USPT Feb 10, 2004

US-PAT-NO: 6687987
DOCUMENT-IDENTIFIER: US 6687987 B2

TITLE: Electro-fluidic assembly process for integration of electronic devices onto a substrate

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Drawi D

☐ 79. Document ID: US 6685812 B2

L5: Entry 79 of 144 File: USPT Feb 3, 2004

US-PAT-NO: 6685812
DOCUMENT-IDENTIFIER: US 6685812 B2

TITLE: Movement of particles using sequentially activated dielectrophoretic particle trapping

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw D

☐ 80. Document ID: US 6641708 B1

L5: Entry 80 of 144 File: USPT Nov 4, 2003

US-PAT-NO: 6641708
DOCUMENT-IDENTIFIER: US 6641708 B1

TITLE: Method and apparatus for fractionation using conventional dielectrophoresis and field flow fractionation

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw D

☐ 81. Document ID: US 6630835 B2

L5: Entry 81 of 144 File: USPT Oct 7, 2003

US-PAT-NO: 6630835
DOCUMENT-IDENTIFIER: US 6630835 B2

TITLE: Apparatus and method for high throughput electrorotation analysis

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw D

☐ 82. Document ID: US 6626724 B2

L5: Entry 82 of 144 File: USPT Sep 30, 2003

US-PAT-NO: 6626724
DOCUMENT-IDENTIFIER: US 6626724 B2

TITLE: Method of manufacturing electron emitter and associated display

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWMC | Draw D

☐ 83. Document ID: US 6596143 B1

L5: Entry 83 of 144 File: USPT Jul 22, 2003

US-PAT-NO: 6596143
DOCUMENT-IDENTIFIER: US 6596143 B1

TITLE: Apparatus for switching and manipulating particles and method of use thereof

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. De

☐ 84. Document ID: US 6576459 B2

L5: Entry 84 of 144 File: USPT Jun 10, 2003

US-PAT-NO: 6576459
DOCUMENT-IDENTIFIER: US 6576459 B2

TITLE: Sample preparation and detection device for infectious agents

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. De

☐ 85. Document ID: US 6563260 B1

L5: Entry 85 of 144 File: USPT May 13, 2003

US-PAT-NO: 6563260
DOCUMENT-IDENTIFIER: US 6563260 B1

TITLE: Electron emission element having resistance layer of particular particles

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. De

☐ 86. Document ID: US 6540895 B1

L5: Entry 86 of 144 File: USPT Apr 1, 2003

US-PAT-NO: 6540895
DOCUMENT-IDENTIFIER: US 6540895 B1

TITLE: Microfabricated cell sorter for chemical and biological materials

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. De

☐ 87. Document ID: US 6496997 B1

L5: Entry 87 of 144 File: USPT Dec 24, 2002

US-PAT-NO: 6496997
DOCUMENT-IDENTIFIER: US 6496997 B1
**** See image for Certificate of Correction ****

TITLE: Hard disk driver with an integrated structure for electrostatically removing

dielectric particles generated during the operation, and electrostatic cleaning method for a hard disk driver

☐ 88. Document ID: US 6465225 B1

L5: Entry 88 of 144 File: USPT Oct 15, 2002

US-PAT-NO: 6465225
DOCUMENT-IDENTIFIER: US 6465225 B1

TITLE: Method and device for manipulating particles in microsystems

☐ 89. Document ID: US 6448794 B1

L5: Entry 89 of 144 File: USPT Sep 10, 2002

US-PAT-NO: 6448794
DOCUMENT-IDENTIFIER: US 6448794 B1

TITLE: Apparatus and method for high throughput electrorotation analysis

☐ 90. Document ID: US 6387707 B1

L5: Entry 90 of 144 File: USPT May 14, 2002

US-PAT-NO: 6387707
DOCUMENT-IDENTIFIER: US 6387707 B1

TITLE: Array Cytometry

☐ 91. Document ID: US 6352838 B1

L5: Entry 91 of 144 File: USPT Mar 5, 2002

US-PAT-NO: 6352838
DOCUMENT-IDENTIFIER: US 6352838 B1

TITLE: Microfluidic DNA sample preparation method and device

☐ 92. Document ID: US 6310309 B1

L5: Entry 92 of 144 File: USPT Oct 30, 2001

US-PAT-NO: 6310309
DOCUMENT-IDENTIFIER: US 6310309 B1

TITLE: Methods of analysis/separation

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Drawi De

☐ 93. Document ID: US 6294063 B1

L5: Entry 93 of 144 File: USPT Sep 25, 2001

US-PAT-NO: 6294063
DOCUMENT-IDENTIFIER: US 6294063 B1

TITLE: Method and apparatus for programmable fluidic processing

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Drawi De

☐ 94. Document ID: US 6264815 B1

L5: Entry 94 of 144 File: USPT Jul 24, 2001

US-PAT-NO: 6264815
DOCUMENT-IDENTIFIER: US 6264815 B1
**** See image for Certificate of Correction ****

TITLE: Apparatus and method for testing using dielectrophoresis

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Drawi De

☐ 95. Document ID: US 6197176 B1

L5: Entry 95 of 144 File: USPT Mar 6, 2001

US-PAT-NO: 6197176
DOCUMENT-IDENTIFIER: US 6197176 B1

TITLE: Manipulation of solid, semi-solid or liquid materials

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Drawi De

☐ 96. Document ID: US 6185084 B1

L5: Entry 96 of 144 File: USPT Feb 6, 2001

US-PAT-NO: 6185084
DOCUMENT-IDENTIFIER: US 6185084 B1

TITLE: Electrostatic particle transportation

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. D

☐ 97. Document ID: US 6168948 B1

L5: Entry 97 of 144 File: USPT Jan 2, 2001

US-PAT-NO: 6168948
DOCUMENT-IDENTIFIER: US 6168948 B1

TITLE: Miniaturized genetic analysis systems and methods

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. D

☐ 98. Document ID: US 6149789 A

L5: Entry 98 of 144 File: USPT Nov 21, 2000

US-PAT-NO: 6149789
DOCUMENT-IDENTIFIER: US 6149789 A

TITLE: Process for manipulating microscopic, dielectric particles and a device therefor

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. D

☐ 99. Document ID: US 6059950 A

L5: Entry 99 of 144 File: USPT May 9, 2000

US-PAT-NO: 6059950
DOCUMENT-IDENTIFIER: US 6059950 A

TITLE: Travelling wave particle separation apparatus

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. D

☐ 100. Document ID: US 6056861 A

L5: Entry 100 of 144 File: USPT May 2, 2000

US-PAT-NO: 6056861
DOCUMENT-IDENTIFIER: US 6056861 A

TITLE: Process and device for generating resonance phenomena in particle suspensions

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. D

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Terms	Documents
(microbead or bead or particle or microparticle) same (dielectrophore$ with (move or moving or rotate or rotating or manuevering or manueverable or sort or sorting or sorted))	144

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31. (Original) The method of claim 24, wherein the linking element comprises an antibody, single chain antibody, peptide, hormone, nucleic acid sequence, therapeutic drug, antibiotic, or a chemically-reactive compound.

32. (Original) The method of claim 24, wherein the insulating layer comprises one or more self-assembled monolayer layers.

33. (Original) A method for identifying one or more complexes within a sample, the method comprising:

admixing with the sample a plurality of engineered microparticles, each microparticle having a different dielectric property;

associating the plurality of engineered microparticles with one or more target analytes to form one or more complexes; and

identifying the one or more complexes by distinguishing between the different dielectric properties.

34. (Original) The method of claim 33, wherein each the plurality of engineered microparticles comprise a conductive core and an insulating layer.

35. (Original) The method of claim 34, wherein the insulating layer comprises one or more self-assembled monolayer layers.